

*IMPROVING DAY-TREATMENT SERVICES FOR ADULTS WITH  
SEVERE DISABILITIES: A NORM-REFERENCED  
APPLICATION OF OUTCOME MANAGEMENT*

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We evaluated an outcome management program for working with staff to improve the performance of adults with severe disabilities in a congregate day-treatment setting. Initially, observations were conducted of student task involvement and staff distribution of teaching interactions across students in four program sites. Using recent normative data to establish objective goals for student performance, management intervention was warranted in two of the sites. A six-step outcome management program was then implemented in the two sites. The program involved defining desired student and staff outcomes, systematic monitoring of the outcomes, staff training, and supportive and corrective feedback. The outcome management program was accompanied by increases in student on-task behavior and staff distribution of teaching interactions in both sites. The increases brought the levels of on-task behavior above the normative average; on-task behavior was maintained above the baseline average for over 1 year in both sites. These results are discussed in terms of the benefits of relying on normative data for objectively evaluating and improving service delivery systems. Discussion of future research needs focuses on applying the outcome management program to other settings and services for people with disabilities.

DESCRIPTORS: day-treatment services, developmental disabilities, outcome management

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The most common treatment setting for adults with severe disabilities is congregate programs involving other individuals with disabilities. Although professional consensus usually endorses the benefits of community-based supported employment relative to segregated congregate day programs (Mank, Cioffi, & Yovanoff, 2000; Rusch & Hughes, 1989), most adults with severe disabilities attend day activity centers, sheltered workshops, or adult education classrooms of a congregate nature (Lecher & McDonald, 1996). Further, congregate day-treatment programs continue to be developed around the United States (West et al., 2002).

In light of the prevalence of congregate programs for adults with severe disabilities, attention is warranted to ensure the highest quality of services possible is provided in those settings (Clees, 1996). Although a number of factors affect the quality of day-treatment programs, two variables have been noted as critical. One variable is the availability of functional, age-appropriate activities. Providing activities that involve learning and using functional skills in contrast to nonfunctional or age-inappropriate skills is a long-standing recommended practice in education and related programs (Dyer, Schwartz, & Luce, 1984; Kleinert & Kearns, 1999). A second variable is the degree to which programs promote actual participation of individuals in the program activities

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(i.e., on-task or engaged time) in contrast to individuals spending time in nonpurposeful or off-task behavior (McDonnell, Thorson, McQuivey, & Kiefer-O'Donnell, 1997).

Despite the continuing pervasiveness of congregate day services and the importance of participant involvement in functional activities, few investigations have focused on how to promote functional task participation among adults in day-treatment programs. A recent observational study of 100 congregate day programs for adults with severe disabilities around the United States suggests that improvement is needed (Reid, Parsons, & Green, 2001). To illustrate, on average, half (49%) of participant time in the programs observed was spent in no apparent activity or off-task behavior. In one fourth of observed program sites, off-task behavior accounted for 70% of the participants' time.

Although congregate day services for adults with severe disabilities have not received much attention in the research literature, there has been considerable research in other congregate situations for this population, such as leisure activities in group living arrangements (Sturmey, 1995). One outcome of the research has been the emergence of a technology for maximizing performance of adults with severe disabilities in group situations. In particular, frequent distribution of staff members' prompting and reinforcing interactions across individuals in a given group has been highlighted as a key variable affecting on-task behavior (Parsons & Reid, 1993; Sturmey, 1995). Based on these observations, however, the technology for enhancing on-task behavior does not appear to have been effectively applied in many day-treatment settings for adults with severe disabilities.

One means of promoting the use of techniques that improve task involvement in adult day settings is to demonstrate ways of training the support staff to use the available

technology. More specifically, unless staff members are effectively trained to use programmatic procedures and are sufficiently supervised to maintain their use, the technology is not likely to benefit many potential consumers with disabilities (cf. Kuhn, Lerman, & Vorndran, 2003; Neef, 1995; Schell, 1998).

The purpose of this investigation was to evaluate an outcome management program for working with staff to enhance functional task involvement of adults with severe disabilities in a congregate day setting. Behavioral outcome management represents a recent synthesis of staff training and management strategies derived from behavior-analytic research into a systematic, stepwise approach to staff supervision (Reid & Parsons, 2002). Initial research has supported the efficacy of an outcome management approach in supported work (Reid, Green, & Parsons, 2003). To date, however, the program has not been investigated for enhancing services in congregate day-treatment settings. A second and related purpose was to demonstrate a means of systematically assessing aspects of the quality of day-treatment services using a norm-referenced process. Reliance on normative data can enhance objectivity of program evaluation and subsequent decisions concerning when management action is needed to improve services (Parsons & Reid, 1993). Normative data can also be helpful in selecting socially valid goals for service improvement (Hawkins, 1991) and evaluating the social validity of observed behavior changes (Kennedy, 1992).

## METHOD

### *Setting and Participants*

The setting was four program sites for individuals with severe disabilities in an adult education agency. Each program site was based in a classroom. However, program activities extended outside the classrooms to

include various work settings. A variety of remunerative work activities were provided within and outside of the classrooms, including making craft items to be sold in the agency's outlet store and performing agency services (e.g., folding cleaning towels, making supply deliveries). Each program site also provided teaching services in addition to those related to vocational endeavors, focusing on leisure, communication, and self-care skills.

*Student participants.* Each program site served a group of adult students, with group size ranging from 3 to 6 students. The students were assigned to program sites based on their skill-development needs and preferences, resulting in some students attending several different sites during the week. In total, 30 students attended the four program sites at least part time. The students ranged in age from 22 to 62 years and had severe disabilities, primarily profound mental retardation. All but 5 of the students used idiosyncratic gestures or infrequent one-word utterances for communicative purposes (2 students used voice output communication devices and 3 communicated with two- or three-word utterances). Of the students, 24 were nonambulatory and 12 had limited use of their hands. All students were dependent on staff assistance for completing self-help routines.

*Staff participants.* Primary staff participants were 3 certified special education teachers and 4 teacher assistants who worked in the four program sites. Secondary staff participants included personnel from the students' congregate homes. These individuals constituted a group of float staff who were assigned to program sites to supplement the education staff during times when more than 5 students were assigned to a program site. Float staff were also assigned to cover for education staff absences.

One of the 3 target teachers divided her time between Program Sites 1 and 3, and a

2nd teacher was assigned exclusively to Program Site 2. The 3rd teacher divided her time between Program Site 4 and a supported work site that was not involved in the study. Each of the 3 teachers had at least 15 years of experience working with individuals with severe disabilities. Each of the 4 teacher assistants was assigned on a full-time basis to one of the four sites. All of the assistants had high school degrees and at least 1 year of experience. Although a float staff member typically was assigned to each program site several times weekly, the same staff person was not always assigned to the same site. Throughout the study, 5 different float staff members were assigned to Sites 1 and 2, and 2 and 3 different float staff members were assigned to Sites 3 and 4, respectively. The float staff members were similar in educational background (i.e., high school degrees) to that of typical direct support personnel in residential settings (Bradley, Taylor, Mulhern, & Leff, 1997).

### *Behavior Definitions*

*Student behavior.* Two categories of student behavior were targeted. On-task behavior was defined as an individual working on a task assigned by a staff member (e.g., manipulating instructional or work materials), interacting with a staff person (e.g., gesturing to a teacher), or receiving an interaction from a staff member (e.g., being prompted to complete an activity). Material manipulation by an individual was considered on task only if the materials were used in the manner for which they were designed or as directed by the staff member. Behaviors defined as on task were subcategorized as either functional or nonfunctional. The criteria for functional tasks were based on established guidelines for meaningful instructional tasks for people with severe disabilities (Evans & Scotti, 1989; Reid et al., 2001) and included two components: functional materials and functional activities. On-task behavior was

considered functional only if both the instructional materials (if materials were used as part of the task) and the ongoing activity were functional. For materials to be considered functional, they had to be representative of materials encountered in natural or typical nonclassroom environments (i.e., used by adults without disabilities). For example, instruction in the use of money had to involve real coins or bills to be scored as including functional materials; use of play money would result in a scoring of non-functional materials. For an activity to be functional, it had to meet the criteria for one of the following five skill domains (see Reid *et al.*, 2001, for elaboration): (a) It would likely occur among a nondisabled adult population during leisure time (leisure domain), (b) was part of a vocational task that, once mastered, would be a skill for which an adult could be paid in a partial or full employment situation (vocational domain), (c) was part of an interpersonal interaction that the adult would likely perform at least weekly outside of the classroom, or represented an interaction that would not be unusual for an adult without disabilities to perform weekly (social domain), (d) was part of an activity that would likely occur among nondisabled adults in a community setting (community domain), or (e) would be performed by someone for the adult outside of the classroom if the person did not perform the task for him- or herself (self-care).

*Staff behavior.* The staff behavior of concern was *teaching interactions*, defined as a staff member prompting or praising (explicit expression of approval) an individual student's on-task involvement with a functional task. Prompting could be verbal, gestural, or physical.

#### *Observations and Reliability*

Observations of student and staff behavior were conducted in the following manner. First, on entering a program site, the ob-

server identified the students on an observation form following a left-to-right view of the area. The observer then monitored the behavior of the 1st student listed using a momentary time-sampling system and recorded if the student was on task, and if the on-task behavior was functional. A different student was observed every 10 s until all students had been observed (if fewer than 5 students were present, each student was observed a second time). Next, the observer continuously monitored the teaching interactions of all staff present for 5 min. The 5 min were divided into 1-min intervals in which the observer recorded each student who received a teaching interaction during that minute. The occurrence of a teaching interaction was recorded by listing the initials of the staff member who provided the interaction next to the name of the student who was the recipient of the interaction. After the teaching interactions were noted, observations of on-task behavior were repeated.

By including the observations of student behavior at the beginning and end of each observation session, there was always a total of at least 10 samples of student behavior per observation session. Hence, each observation session involved at least one momentary sample of the behavior of each student, continuous frequency counts of teaching interactions among all staff for 5 min, and then at least one more momentary sample of the behavior of each student. Each observation session began in a classroom and involved all students and staff present. In addition, areas immediately outside the classroom (e.g., work hallway) were viewed; if students or staff were present in those areas, they were included in the session.

Because potential reactivity among staff to having their work performance observed is a noted concern in behavioral research with human service personnel (Ivancic & Helsel, 1998), several features were incorporated within the observation process to minimize

possible reactivity. First, observations were conducted on an unpredictable schedule (Fleming & Sulzer-Azaroff, 1992), with a maximum of one observation per day per classroom. An average of one observation occurred per week per classroom, and the days on which observations occurred varied across weeks. Second, the supervisor and a staff development representative, who were frequently in the classrooms for observation purposes prior to this investigation, conducted observations. Having observations conducted by persons whose presence is not a novel event can reduce staff reactivity to observations (Peck, Killen, & Baumgart, 1989).

Interobserver agreement checks occurred during 23% of the observations, and included all program sites and experimental conditions. Interobserver agreement for on-task behavior and functional task involvement was determined on a sample-by-sample basis by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100%. Overall agreement for on-task behavior averaged 94% (range, 78% to 100%), occurrence agreement averaged 87% (range, 50% to 100%), and nonoccurrence agreement averaged 86% (range, 50% to 100%). Averages for functional task involvement were 93% (range, 78% to 100%), 85% (range, 50% to 100%), and 92% (range, 60% to 100%). Regarding the number of students receiving teaching interactions from classroom staff, interobserver agreement was determined on a minute-by-minute basis. For each minute of observation, the smaller percentage of students receiving an interaction recorded by one observer was divided by the larger percentage recorded by the other observer and multiplied by 100%. The agreement percentages for each minute were then averaged across the session. Interobserver agreement averaged 94% (range, 75% to 100%).

### *Procedure*

*Baseline.* Prior to conducting baseline observations, the director of the adult education agency (an experimenter) met with all staff and explained that observations would be forthcoming as part of a general approach to evaluating program sites. Baseline observations were conducted while staff carried out their usual routines. Typically, staff worked individually with students for 5 to 10 min at a time on specific program activities. For example, one staff member might instruct a student on weeding a flower garden, and another staff member instructed a student on filling seed trays with dirt. Students who were not receiving individualized attention from staff members were provided with materials for independent work. To illustrate, several students may have been given spray bottles and instructions to water plants in the classroom. The staff periodically provided prompts to these students (e.g., asking a student if he or she was watering the plant), although there was no apparent schedule for the prompt. There was also no readily apparent structure regarding which staff person would work with which students.

*Outcome management program.* After reviewing baseline data from the four program sites, it appeared that in Sites 3 and 4, student on-task behavior and involvement in functional tasks compared favorably (see Results section) with data from the normative sample of adult education programs referred to previously (Reid et al., 2001). In Program Sites 1 and 2, when students were on task, they were almost always involved in functional tasks (again, see the Results section), which also compared favorably to the normative data. However, the levels of on-task behavior in Sites 1 and 2 were noticeably below the normative average. Therefore, the intervention was directed at increasing on-task behavior in Program Sites 1 and 2 with-



out negatively affecting the functional utility of on-task behavior. Analysis of baseline data in Sites 1 and 2 also suggested that there was a relative lack of distribution of teaching interactions across different students. Given the importance of staff distribution of teaching interactions, the outcome management program focused on increasing distribution of teaching interactions as a means of increasing on-task behavior.

In accordance with a behaviorally based outcome management approach to improving human service staff performance (Reid & Parsons, 2002), the intervention consisted of six steps. The first three steps were instituted at the beginning of the study for baseline analysis. Step 1 consisted of identifying the desired student outcomes (acceptable levels of on-task behavior and functional task involvement relative to existing norms, using the previously described definitions of on-task behavior and functional activities and materials), Step 2 consisted of defining the desired staff behavior related to assisting students in increasing their on-task behavior (represented in the definitions of teaching interactions and their distribution), and Step 3 consisted of monitoring the targeted student and staff behavior (represented in the observation system also described earlier). Steps 4 through 6 represented the experimental intervention *per se*, and involved training staff in the targeted performance skills and providing supportive and corrective feedback.

Step 4 (staff training) consisted of three phases, including an initial in-service meeting, a brief follow-up meeting, and one session of on-the-job training. A 1-hr in-service meeting was held with the teacher and assistant from each program site. During the meeting, a rationale for increasing on-task behavior was discussed and a goal of at least 50% on-task behavior was presented. The normative average of 49% (Reid *et al.*, 2001) was also discussed as a basis for the

50% goal. Baseline data were shared with the staff members so that they could compare their baseline data to the normative average. A model for structuring staff duty assignments was then presented that was designed to facilitate distribution of teaching interactions across students. Specifically, staff duties were divided into two roles: a trainer and an activity coordinator. The trainer's role entailed working individually with students to conduct skill-acquisition programs for 5 to 10 min at a time. The activity coordinator's role was to frequently rotate among the remaining group of students while providing brief teaching interactions (less than 1 min) to encourage students to remain on task with an activity. The intent of structuring staff duties using the two roles was to provide individual teaching time and to ensure that students who were not receiving individual instruction received frequent attention in terms of prompts and praise for on-task behavior. Staff members were given a written handout that included the definitions of on-task behavior, functional tasks, and teaching interactions as well as a description of the trainer and activity coordinator roles.

A follow-up meeting was held approximately 2 weeks after the initial in-service meeting. The purpose of the follow-up meeting was to review the classroom schedule developed by the education staff. Also at the follow-up meeting, the need to train the float staff from the students' homes to follow role assignments and to provide teaching interactions was explained. Education staff members were instructed to train the float staff by describing and demonstrating the expected performances, and then giving feedback as the float staff implemented the roles and provided teaching interactions. A date was then set to implement the new schedule.

On the 1st day of the new schedule, the director of the adult education agency was

in the program site to conduct on-the-job training. She observed and provided verbal feedback to the teacher and assistant regarding correct execution of their role assignments and provision of teaching interactions. If a float staff was present, the director demonstrated the duties associated with role assignments and providing teaching interactions for that staff person. The float staff was asked to practice distributing teaching interactions across students. The program director then provided feedback until the staff correctly demonstrated the assigned role and interactions. After the 1st day of the new schedule, the teacher or assistant assumed responsibility for training any future float staff assigned to the program site.

Following one session of on-the-job training, observations of staff and student behavior were resumed as in baseline (baseline observations had been discontinued when training was initiated). Subsequently, Steps 5 and 6 of the outcome management program were initiated. These two steps consisted of the program director providing supportive and corrective feedback, respectively. Following each observation, the director provided verbal feedback regarding the degree to which on-task behavior compared to the normative average. Praise (supportive feedback) was provided when the level of on-task behavior was at or above the normative average. In addition, written feedback was provided by showing the staff a line graph that indicated the level of on-task behavior relative to the normative average and relative to baseline. Corrective feedback occurred when on-task behavior was not above the normative average (provided verbally by noting that improvement was warranted). Corrective feedback also included information on the degree to which staff members were distributing their interactions across students, with an emphasis on attempting to ensure that on average, students received more teaching interactions than in baseline.

*Follow-up.* Follow-up observations were conducted intermittently on 10 occasions across a 64-week period in Site 1 and on four occasions across a 62-week period in Site 2. During the follow-up period, the director of the adult education agency followed her typical work routine, which usually involved being in the two target program sites two or three times per week. When she was in a target site, she typically gave general verbal feedback regarding the overall degree to which students were on task. In addition, when formal follow-up observations were conducted (the same observation system used during baseline and the outcome management program), verbal feedback was provided to the staff regarding the observed level of on-task behavior, and praise was presented when observed levels were above the normative average.

*Experimental design.* The experimental design was a multiple probe across Sites 1 and 2.

## RESULTS

As noted previously, baseline data for on-task behavior were within acceptable ranges based on the normative data for Sites 3 and 4. Specifically, on-task behavior averaged 74% and 59%, respectively, for the two sites. These averages were above the normative average of 49%. Also in Sites 3 and 4, during 100% of the on-task intervals students were engaged in functional tasks (the normative average was 75%). Hence, no intervention was necessary in these two program sites. In contrast, on-task behavior in Sites 1 and 2 was well below the 49% average. Consequently, improvement was warranted. When the students were on task in these two program sites during baseline, 100% of their behavior involved functional tasks; thus, although increases in on-task behavior were warranted, the type of task involvement was satisfactory and did not require improvement.

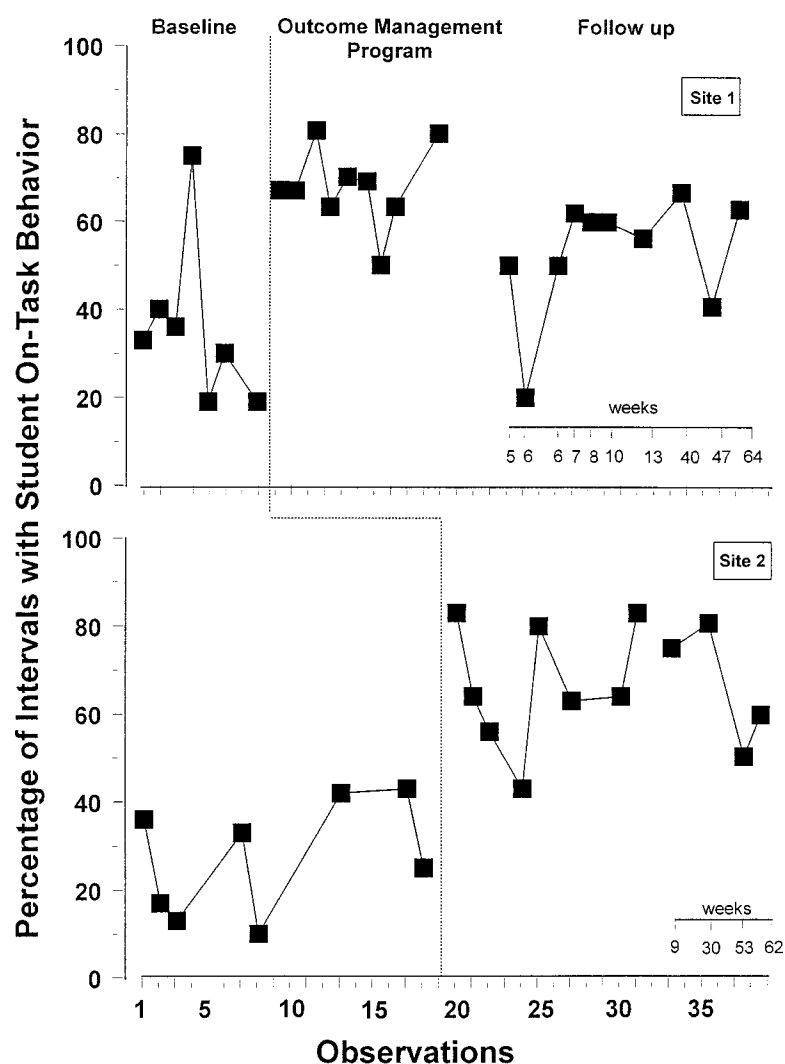


Figure 1. Percentage of intervals with student on-task behavior for each observation for both program sites during each experimental condition.

### *Student Behavior*

Figure 1 shows the percentage of on-task behavior for students in Sites 1 and 2 during baseline and following implementation of the outcome management program. In Site 1, on-task behavior increased from an average of 36% (range, 19% to 75%) during baseline to an average of 68% (range, 50% to 80%) during the program. In Site 2, on-task behavior increased from an average of 27% (range, 10% to 43%) during baseline to an average of 67% (range, 43% to 83%) during the program.

The average increases in on-task behavior that occurred in both sites during the outcome management program were not due to increases for only a small number of students in each site (Table 1). Six of the 8 students who attended Site 1 and were present during both experimental conditions showed an increase in on-task behavior during the outcome management program. Similarly, 6 of 7 students who attended Site 2 showed an increase in on-task behavior during the outcome management program.

Whereas on-task behavior increased when



Table 1  
Mean Percentage of On-Task Behavior for Individual Students

Site	Student	Condition	
		Baseline (range)	Outcome management program (range)
1	1	59 (50–100)	61 (0–100)
	2	21 (0–100)	73 (50–100)
	3	67 (0–100)	100 (100)
	4	20 (0–50)	49 (25–100)
	5	25 (0–50)	— <sup>a</sup>
	6	25 (0–50)	59 (25–100)
	7	50 (50)	27 (0–50)
	8	0 (0)	38 (0–100)
	9	50 (50)	88 (50–100)
2	10	40 (0–50)	37 (0–100)
	11	24 (0–100)	100 (100)
	12	27 (0–100)	100 (100)
	13	8 (0–33)	77 (50–100)
	14	41 (0–50)	56 (50–75)
	15	25 (0–100)	50 (50)
	16	50 (50)	58 (25–100)

<sup>a</sup> The student was not present during observations.

the outcome management program was in effect, the percentage of on-task intervals in which students were engaged in functional tasks remained high (not shown in Figure 1). During the program, involvement in functional tasks averaged 100% in Site 1 and 95% in Site 2.

### Staff Behavior

To achieve the desired outcome of increasing on-task behavior (Step 1 of the outcome management program), it was necessary that staff frequently distribute their teaching interactions across students (which related to the remaining steps of the management program). Figure 2 shows the average percentage of students who received a teaching interaction during each minute of the observation. During baseline, the percentage of students who received a teaching interaction was variable and averaged 54% (range, 40% to 80%) in Site 1 and 45% (range, 20% to 75%) in Site 2. During the outcome man-

agement program, the percentage of students who received teaching interactions increased to an average of 70% (range, 56% to 92%) in Site 1 and 68% (range, 60% to 83%) in Site 2.

Regarding individual staff behavior, among the 5 staff who were present during both baseline and outcome management conditions in Site 1 (involving the teacher, assistant, and 3 float staff), the average percentage of students with whom the staff interacted increased from baseline to the program condition. In Site 2, among the 3 staff who were present during observations in both experimental conditions (teacher, assistant, and 1 float staff), the average percentage of students with whom the staff interacted increased for 2 of the 3 staff and remained the same for the 3rd.

### Follow-Up

During the follow-up period, student on-task behavior generally remained above baseline levels for Site 1, and always remained above baseline for Site 2 (Figure 1). Although there was some decrease in on-task behavior for both program sites relative to the formal outcome management program, throughout the 64-week follow-up period for Site 1 and the 62-week period for Site 2, the level of on-task behavior fell below the normative average on only two occasions (second and ninth follow-up observations for Site 1). Also during the follow-up period, staff maintained their distribution of interactions at a level above the baseline average and similar to the level observed during the formal outcome management program (Figure 2).

## DISCUSSION

The first purpose of this investigation was to evaluate an outcome management program for working with staff to enhance functional task involvement of adults with severe disabilities in a congregate day setting. Re-

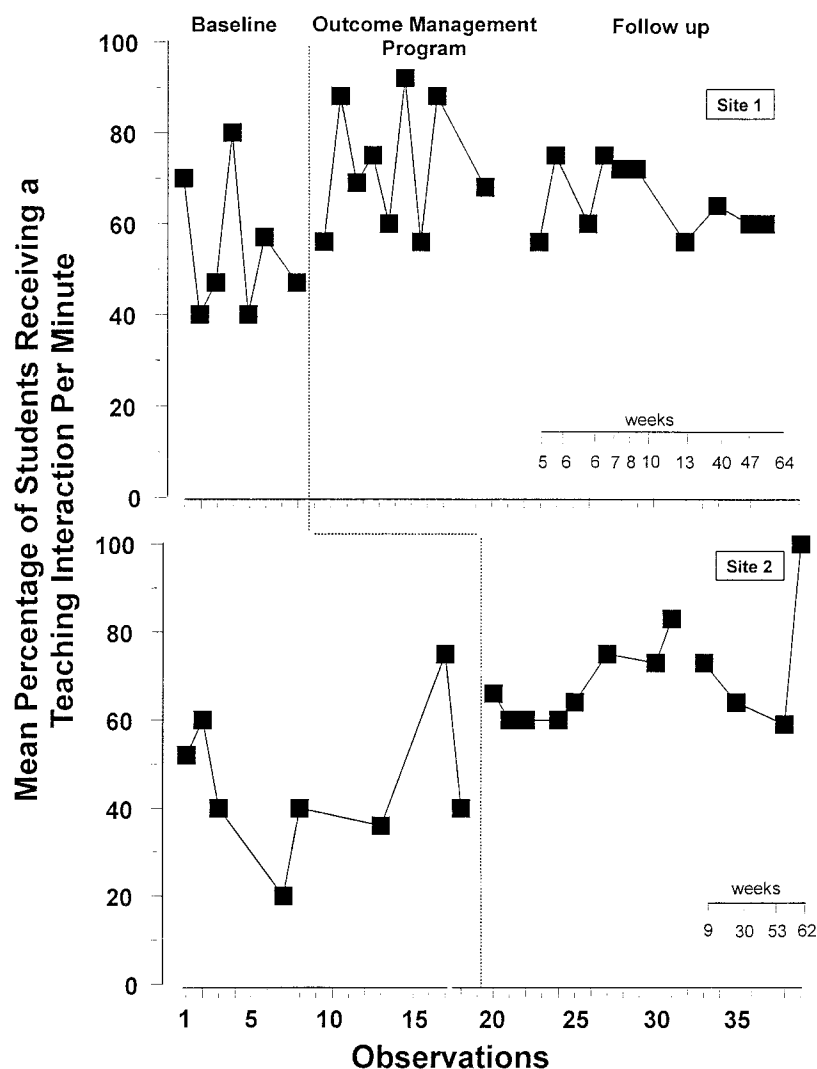


Figure 2. Mean percentage of students receiving a teaching interaction from staff during each minute of each observation for both program sites during each experimental condition.

sults indicated that when the outcome management program was applied in the two sites, the number of students receiving teaching interactions increased in both sites (i.e., staff increased their distribution of teaching interactions across students). Similarly, student on-task behavior increased in both sites when the outcome management program was in effect. The increases in staff members' distribution of teaching interactions and student on-task behavior was maintained above baseline for over 1 year in both sites.

As noted earlier, the importance of staff distribution of teaching interactions for maximizing task involvement among people with severe disabilities in group leisure activities has been relatively well established in congregate living situations (Sturmey, 1995). As also noted previously, this technology for providing services in group situations does not appear to have been applied effectively in many congregate day-treatment settings for adults with severe disabilities (Reid et al., 2001). Determining means of enhancing evidenced-based technological application in

routine service settings has become an area of increased concern in applied behavior analysis ("Call for Papers," 2002). Results of this investigation seem to offer support for the utility of an outcome management approach as one means of aiding such application.

A second purpose of this investigation was to demonstrate a means of systematically assessing the quality of day-treatment services using a norm-referenced process. Reliance on normative data provided an objective basis for evaluating the degree to which the program sites promoted on-task behavior as well as student involvement in functional tasks. By focusing on the average level of student on-task behavior and functional task involvement represented in the normative sample, an objective goal for the program sites was established. If the sites surpassed the goal during baseline assessment or following implementation of the outcome management program, then the quality of these services appears to be socially validated (Kennedy, 1992). That is, the services would be at least better than average relative to other congregate day-treatment sites for adults with severe disabilities.

Focusing on the normative average of on-task behavior and functional task involvement as a service delivery goal also allowed objective decisions regarding in which specific cases management action was necessary to improve services. To illustrate, in all four program sites observed, when students were on task during baseline observations, they were involved in functional tasks at a level well above the normative average. Hence, intervention was not necessary to improve the functional utility of the activities provided. Similarly, in Sites 3 and 4, on-task behavior during baseline was also above the normative average. Limiting management interventions to those components of an agency's service system that objectively warrant improvement in contrast to implementing agency-wide in-

terventions (as often occurs in the human services; Everson & Reid, 1999, chap. 4) is likely to reduce management efforts necessary to improve service delivery. Identifying strategies for improving services that minimize managerial time and energy has long been recognized as a desirable attribute of staff training and supervision (Phillips, 1998).

Although use of normative data in program evaluation and improvement endeavors can be beneficial in a number of ways, reliance on norms for improvement goals does not always ensure ideal outcomes (Hawkins, 1991). For example, the norms themselves may reflect less than adequate service systems. This may be the case with congregate day-treatment programs for adults with severe disabilities in light of the professional consensus that this population is usually better served in supported employment settings with people who do not have disabilities (Mank et al., 2000). Nonetheless, most adults with severe disabilities who regularly attend day activities outside their residences continue to participate in congregate day-treatment settings (West et al., 2002). If congregate treatment settings represent the type of service situation for the majority of adults with severe disabilities, it is useful to attempt to ensure that services in these types of settings are as beneficial as possible. Results of this investigation indicate that using outcome management may be one means of helping to provide such assurances. Results also suggest that continued research with this type of management approach may be a viable means of affecting and maintaining improvements in other types of services and settings for people with developmental disabilities.

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*STUDY QUESTIONS*

1. According to the authors, what are two variables that affect the quality of day-treatment programs?
2. What criteria were used for determining whether on-task behavior was functional or non-functional?
3. Briefly describe the observation method.
4. Summarize the results of the baseline observations and how those data influenced subsequent treatment phases.
5. Summarize the effects observed during the outcome management program.
6. What data suggested that average increases in student on-task behavior were not due to a change in behavior of only a small subset of the students at each site?
7. How might the definition of on-task behavior have influenced the results?
8. What are two benefits and one limitation of using normative data?

Questions prepared by Jessica L. Thomason and David Wilson, University of Florida



## CALL FOR PAPERS

### SPECIAL ISSUE ON CLINICAL BEHAVIOR ANALYSIS

Interventions based on the principles of operant and respondent conditioning have long been applied to socially important problems traditionally characterized as clinical or psychological disorders. This family of interventions is often referred to as behavior *therapy*. However, not all such behavioral applications have been based on the philosophical, conceptual, and methodological conventions of behavior *analysis*. The term *clinical behavior analysis* has been invoked with increasing frequency to describe the contemporary application of behavior analysis to the understanding and treatment of problems traditionally encompassed by clinical psychology (Dougher & Hayes, 2000). Recent advances in clinical behavior analysis include the analysis and treatment of psychotic, depressive, and hyperactive behavior, substance abuse, marital problems, dementia, and tic disorders, among others. To highlight these recent developments, *JABA* will publish a special issue devoted to clinical behavior analysis. Suitable contributions include empirical articles and reports, discussion articles, and book reviews (including behavior-analytic critiques of mainstream clinical writings). Empirical submissions should have as their primary focus a problem central to a *DSM-IV* (APA, 1994) diagnosis, include direct-observation data on individual behavior, employ an acceptable experimental design, and offer a conceptual analysis of the findings. Authors are invited to submit manuscripts to the editor, Patrick C. Friman (Clinical Services, 13603 Flanagan Blvd., Boys Town, NE 68010) via the usual process and to include in their cover letter a request to have the paper considered for publication in the special issue. The guest associate editors for this issue will be Jim Carr (jim.carr@wmich.edu), Doug Woods (dwoods@uwm.edu), and Ray Miltenberger (ray.miltenberger@ndsu.nodak.edu). For details about the special issue, please contact them.

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